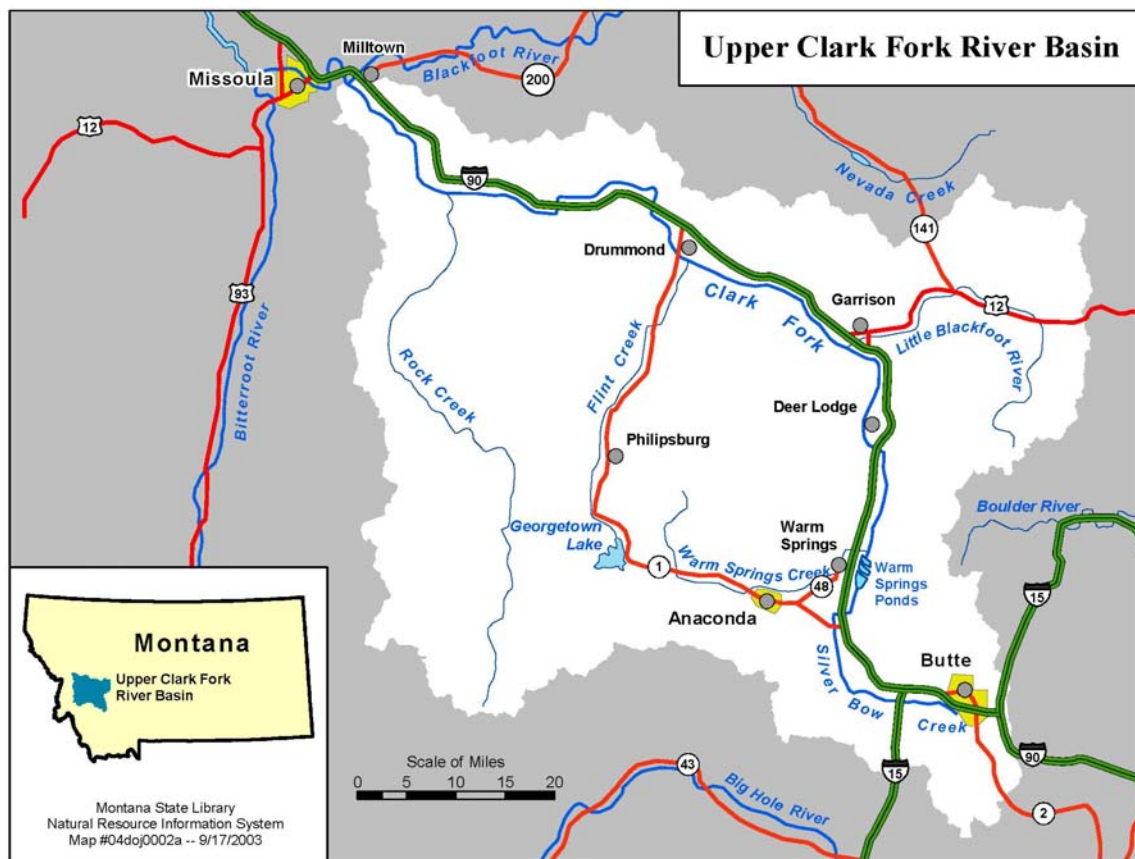


Draft Conceptual Framework for an Upper Clark Fork River Basin Restoration Priorities Road Map



Prepared by the Natural Resource Damage Program

March 2008

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Section 1. Introduction

This document outlines the NRDP's proposed conceptual framework for how the Upper Clark Fork River Basin (UCFRB) Restoration Fund be prioritized via earmarking after settlement of the UCFRB natural resource damage litigation. This framework, if approved by the Governor, would be the basis for revisions to the existing *UCFRB Restoration Plan Procedures and Criteria (RPPC)*. This draft conceptual framework and a draft revised *RPPC* will be subject of a public input process similar to the existing *RPPC* process that occurs before a final decision by the Governor (i.e., input from Advisory Council (AC), Trustee Restoration Council (TRC), and the general public), as further detailed in Section 7. It would take approximately one year to develop this revised *RPPC*, which is similar to the timeframe it took to develop the first *RPPC* in 2000. The process envisioned herein is anticipated to occur over a 15 to 20 year timeframe,¹ which includes an initial 1 to 2 year planning effort to establish priorities. Process changes would be made as needed improvements are identified and developed, with public input.

The goal of the proposed allocation of the Restoration Fund is to restore or replace the injured natural resources of the UCFRB in a timely, cost-effective and prioritized manner. The guiding principles used to develop this proposal are:

- That by law, Restoration Funds may only be spent on projects that restore, replace, or acquire the equivalent of injured natural resources and lost services and Fund expenditures must be made in the context of implementing appropriate restoration plans that are subject of public input.
- That Restoration Funds be expended according to basin-wide priorities established via planning processes that are the subject of public input. This prioritization will focus on what are the most cost-effective approaches to restoring or replacing injured natural resources and lost services in the UCFRB.
- That establishing priorities will allow for a more streamlined review and approval process than what currently exists under the *RPPC*. This streamlining will help reduce costs and increase benefits.
- That integrating restoration with remediation at injured sites covered under Montana v. ARCO is a high priority.
- That the proportionate split of the natural resource claims under Montana v. ARCO be established as 36% for groundwater resources, 39% for aquatic resources, and 25% for terrestrial resources and be a basis of earmarking allocations of Restoration Funds for priority restoration or replacement projects for groundwater, aquatic, and terrestrial resources, respectively.

¹ The 15 to 20 year timeframe is an estimate. It will be based on the remediation timeframe for the major remedial actions and when funds can be most cost-effectively spent. Once priorities are determined, in most cases, it may be better to accomplish them as soon as possible, provided there is no interference with yet to be completed remediation, to maximize benefits.

Section 2. Summary of Conceptual Framework

With the conclusion of its UCFRB natural resource damage litigation, the State enters a phase of transition for how it spends the damages recovered through its three natural resource damage settlements. Some of the settlement funds are earmarked for specific uses in the 1999 Consent Decree for the Silver Bow Creek site, in the 2005 Consent Decree for the Milltown site, and in the 2008 Consent Decree for the Butte Area One, Smelter Hill Area Uplands, and Clark Fork River sites. The majority of the damages awarded in the 1999 settlement that were deposited in the Restoration Fund, however, were not earmarked. This conceptual proposal focuses on further allocations of unearmarked Restoration Funds that are schematically represented in the attached flow chart (**Attachment 1**).

Tier 1 of the flow chart indicates the various funding accounts that either exist now or will be added as a result of the 2008 Consent Decree. All these accounts are interest-bearing and, except for the Restoration Fund, are explicitly earmarked for priority restoration work at injured sites, reserves, or reimbursement of costs.

Tier 2 of the flow chart involves the existing or proposed Restoration Fund commitments for: 1) funds approved for, but not yet spent on, approved grant projects; 2) funds reserved for 2008 grant projects; 3) funds approved for continuation of the Clark Fork Watershed Education Program as a contracted service for four additional years; and 4) funds for integration of remediation and restoration at the sites where that integration is already underway or sufficiently planned such that the funding needed to complete the integration is known. This latter funding category includes: 1) the needed funds to complete the integration of restoration with remediation along Silver Bow Creek and along the Blackfoot and Clark Fork Rivers at their confluence at Milltown; and 2) the needed funds to complete the Dutchman project, which involves integrating remediation and restoration of Warm Springs Creek and Willow Creek and the acquisition of the Ueland/Dutchman lands and water rights from ARCO. The Milltown funds are already earmarked from the Restoration Fund via the 2005 Consent Decree;² the Dutchman project funding will be subject of a Consent Decree, expected to be completed in 2008. The Silver Bow Creek earmarked funding can be accomplished through a change in the *RPPC*.

Tier 3 represents how the NRDP proposes the balance of the Restoration Fund be allocated to five separate interest-bearing accounts, once the Tier 2 priority allocations are subtracted. As proposed, sixty percent (60%) of the remaining money in the Restoration Fund would be allocated to groundwater, aquatic, and terrestrial priority funds based on a split of the natural resource claims settled in the 1999 Consent Decree, established as 36% for groundwater resources, 39% for aquatic resources, and 25% for terrestrial resources. **Attachment 2** contains the backup calculations for this split. The priorities for these funds will be resource-based and established by a prioritization planning process for each natural resource category. Of the remaining 40% of the balance, 35% would be allocated for future grant projects and 5% would

² The 2005 Milltown Consent Decree obligates the State to implement its restoration plan for the Milltown site. It was originally estimated that the State could complete this restoration with \$7.6 million from the Restoration Fund, plus the \$3.9 million from the NorthWestern Milltown Settlement Fund. As of October 2007, \$6.7 million remains to be spent of the \$7.6 million, as shown in Tier 2 of Attachment 1. Due to increasing construction costs and unknown conditions, it now appears that additional funding may be needed to complete this restoration project.

be allocated for basin-wide, long-term monitoring and contingency needs. When the remediation of Silver Bow Creek is completed in 2012, any leftover Silver Bow Creek remediation funds, which are allocated to the Restoration Fund under provisions of the 1999 Consent Decree and projected to be about \$50 to 60 million,³ would be similarly divided up and deposited in these five accounts.

In summary, this conceptual proposal provides for earmarked funding for known restoration needs at priority injured sites (as shown in Tier 1 and Tier 2 of the flow chart) and for a prioritization and implementation process for expending the majority of the remaining Restoration Fund that is tied to a split of funding among the three types of natural resource injuries covered in the lawsuit (Tier 3 and Tier 4 of the flow chart). The following sections outline how the NRDP envisions the process would work for the three priority resource funds as well for the grant and contingency funds.

Section 3. Priority Groundwater Resource Fund

- The groundwater priority funds will be earmarked for priority projects to enhance the drinking water supplies of the Butte and Anaconda communities, because these are the communities in which injured area groundwater aquifers cannot be remediated and restored due to technical impracticability.⁴ The Butte water system also serves the Rocker community.
- As proposed, Butte-Silver Bow (B-SB) and will receive 75% of the 22% earmarked groundwater priority funds; Anaconda-Deer Lodge County (ADLC) will receive 25% of the 22% earmarked groundwater priority funds. **Attachment 3** provides the justification for this 3:1 split.
- B-SB and ADLC will prioritize the enhancement of their drinking water systems through updates to their master plans for their water distribution systems. The master plans serve to determine and prioritize the best way to cost-effectively upgrade current distribution systems, thereby allowing B-SB and ADLC to maintain an adequate supply of good quality drinking water. The Governor approved grant funding of these updates in 2005 (Butte) and 2007 (Anaconda). **Attachment 3** provides supplemental information on the scope of work, timeframe, and funding of these master plan update efforts. Butte will complete updates to its master plan in early 2008; Anaconda will complete its plan by early 2009. These master plans will be subject of periodic changes, as the water systems upgrade needs change over time.

³Joel Chavez, DEQ's project manager for the Silver Bow Creek remediation project, provided this estimate, which will likely change by the time the project is completed in 2012. About three-quarters of the contaminated floodplain tailings have been removed as of December 2007 and about 9 out of the 24 creek miles have been completely reconstructed.

⁴ The technical impracticability waivers are specific to the Butte and Anaconda aquifers. Even though the lawsuit included a groundwater injury at Milltown, needed drinking water improvements to replace the contaminated drinking water supply at Milltown are ARCO's responsibility, plus the remediation at Milltown is expected to remediate most, if not all, the impacted groundwater aquifer to drinking water standards. Thus, this priority allocation does not include Milltown.

- As part of this prioritization process, these communities will develop groundwater resource implementation plans describing how they will expend their initial allocation of the groundwater priority fund over a time period to be set by the communities not to exceed 20 years. The plans will be based on priorities established in the county's master plans and justification will be provided for any deviations from these master plans. The plans will be conceptual in nature, indicating: what projects will be implemented, where, at what cost, and over what timeframe, and any needed monitoring activities. The plans would also need to include a justification for the proposed projects in terms of the applicable Stage 1 legal criteria in the existing RPPC, which are: technical feasibility; cost:benefit relationship; cost-effectiveness; applicable laws and regulations; impacts to the environment; impacts to human health and safety; results of response actions; and resources of special interest to the Tribes and Department of Interior.
- These implementation plans will not address all the water system needs addressed in the master plans; they will only address a subset of those needs. The counties will need to rely on a combination of ratepayer fees, grant funds, and loans to address all system needs, which is consistent with the *RPPC* mandate that grant funds not be used to replace normal government function. These priority funds are intended to get the systems upgraded to a routine maintenance level.
- Similar to how the existing grant proposals are handled, the county implementation plans will be subject of review by the NRDP, AC, and TRC, and the plans could change as a result of input from these entities. The applicable Stage 1 legal criteria in the existing RPPC (listed previously) would be the basis for review. Public comment will be solicited on plans recommended for approval by the TRC. Based on public comment, the NRDP, AC, and TRC will make final recommendations to the Governor regarding approval of final plans.
- The counties will execute the projects covered in the approved implementation plans pursuant to terms of a contractual agreement similar to the existing grant agreement. Reimbursement will occur as specified in the agreement and, similar to the existing grant process, proper invoice documentation will be required for reimbursement.
- The NRDP would review any proposed changes in approved implementation plans to assure that the changes meet the legal threshold and determine whether the changes are of such a material nature that they would require public review and approval by the Governor. Guidelines will be established by which this determination will be made.
- Priority funds will primarily be used for the engineering and construction associated with the implementation plans. The counties' administrative costs to prepare and execute these plans can also be funded by priority groundwater funds if the counties document these costs separate from other county administrative costs.
- Once the counties have completed their projects tied to the initial allocation, they can submit subsequent implementation plans for their portion of the additional funding that has accrued to the groundwater priority fund through the interest earned on that fund and

- B-SB and ADLC will expend their priority groundwater funds before seeking any additional Restoration Fund grant funds for any additional water systems upgrades.
- While matching funds would not be required for projects implemented with priority groundwater funds, the counties are encouraged to seek leveraging options to maximize the work that can be accomplished in conjunction with the priority funds.
- The counties will produce annual status and financial reports for activities conducted each year; these reports will be incorporated into the NRDP's annual report on funded projects.
- All NRDP administrative costs associated with the limited oversight role of this funding would be tracked separately and come from the specific groundwater priority fund that is associated with such oversight.

Section 4. Priority Aquatic and Terrestrial Resource Funds

The State (NRDP and FWP) will conduct a process to prioritize restoration of the aquatic and terrestrial resources of the UCFRB and has started conducting some of the assessment activities needed to do this prioritization. This process will identify priority resource areas for improving aquatic and terrestrial resources of the UCFRB beyond the priorities that will be addressed by approved consent decrees or otherwise committed restoration actions (Tiers 1 and 2 of the flow chart, respectively). The prioritization methodology and results of this process will be subject of consideration by the AC, TRC, and general public and approval by the Governor, similar to the current *RPPC* public participation process. The prioritization documents will be subject of periodic changes as new information becomes available that affect priorities, such as additional sampling information. Since other committed funds deal with priority injured aquatic and terrestrial areas (Reach A of the Clark Fork River, Silver Bow Creek, Smelter Hill Uplands, Butte Area One, and Milltown, as shown in the Tier 1 and 2 allocations in the flow chart), these funds focus on priorities outside of injured areas that are linked to and will best help restore fish and wildlife resources in injured areas.

A) Aquatic Resources and Terrestrial Prioritization Planning Process

- The State will produce an aquatic resource prioritization document for the tributaries of the Clark Fork River and Silver Bow Creek. This will identify priority resource areas for improving fisheries in the UCFRB and what type of work on the tributaries would best augment restoration of the Clark Fork River and Silver Bow Creek fisheries. This document will be based primarily on aquatic resource survey data collected by FWP during the 2007 and 2008 field seasons on Clark Fork River tributaries, on the *2005 Final Silver Bow Creek Watershed Restoration Plan*, and on information obtained through

public scoping meetings to be conducted in 2008.⁵ The scope of work and budget for this prioritization effort is further described in **Attachment 4**.

- The aquatic and terrestrial restoration activities to be integrated with remediation in Reach A of the mainstem of the Clark Fork River and some limited aquatic habitat improvements in Reaches B and C of the River are conceptually outlined in the Clark Fork River restoration plan attached to the Clark Fork River Consent Decree⁶ and, as indicated in tier 1 of the flow chart, will be paid for out of the 2008 settlement. In connection with the State's effort to identify priority resource areas on the tributaries where restoration efforts would best augment restoration of the Clark Fork fishery, the State will identify priority resource areas on the mainstem that are beyond the scope of the activities covered by the 2008 settlement.
- The State will produce a terrestrial resource prioritization document that will identify priority resource areas for improving wildlife habitat and populations in the UCFRB. This document will be based primarily on a basin-wide wildlife habitat assessment coordinated by FWP in 2008, the *2005 Silver Bow Creek Watershed Restoration Plan*, and on information obtained through public scoping meetings to be conducted in 2008. This habitat assessment will highlight those areas of greatest conservation value, of greatest conservation risk, and those areas with the greatest restoration potential. The scope of work and budget for this assessment, which requires approval of the TRC, is further described in **Attachment 4**.
- The priorities for aquatic and terrestrial restoration projects along the mainstem of Silver Bow Creek itself will be addressed by completing the planning for integrated remediation and restoration of the creek and associated earmarking of \$3.5 million to fund those activities as a high priority (Tier 2 of the flow chart). **Attachment 5** provides further details on the basis for this estimate.

B) Implementation of Aquatic and Terrestrial Priority Projects

- Beginning in 2009, the State, primarily through NRDP and FWP efforts,⁷ will develop a series of sequential aquatic and terrestrial resource restoration implementation plans that will propose a variety of projects in high priority resource areas identified in the 2008 prioritization documents. The plans would be proposed no more frequently than twice a year and would indicate the potential aquatic and terrestrial projects that would be further developed for implementation over a specified timeframe. The type of aquatic and terrestrial projects to be implemented may include, but would not be limited to: stream restoration, flow augmentation through water conservation, leasing, or other methods, fish passage, conservation easement and land acquisitions, fencing and grazing

⁵ *Final Silver Bow Creek Watershed Restoration Plan*, NRDP, December 2005.

⁶ *State of Montana's Revised Restoration Plan for the Clark Fork River Aquatic and Riparian Resources*, NRDP, November 2007.

⁷ While NRDP and FWP would be the lead agencies in developing these plans, DEQ and DNRC would have the opportunity to provide input on the plans and also have the ability to partner with the NRDP or FWP on a particular project covered in the implementation plans.

management, and revegetation projects. The timeframe needed to plan the projects that will be described conceptually in the implementation plans will vary. Complex projects such as water leasing may take many years to plan. When appropriate and necessary, FWP and NRDP may contract for assistance to develop aquatic and terrestrial priority projects.

- The State's costs to develop and execute aquatic and terrestrial restoration implementation plans would be tracked separately and funded by the earmarked aquatic and terrestrial priority accounts, respectively. For projects that both have aquatic and terrestrial restoration components, the aquatic/terrestrial accounts would be proportionately debited.
- The State will provide periodic updates of the planning steps being conducted to inform the AC, TRC, and public of the State's progress in accomplishing the high priority terrestrial and aquatic resources goals.
- The State may partner with other entities to conduct the work in high priority resource areas. For example, the State may work with non-profit conservation groups or local conservation districts on stream restoration projects, with some tasks being conducted by the State and some tasks being conducted by other entities as a contracted service to the State. Another example would be the State partnering with a non-profit land conservation organization to accomplish high priority land purchases or secure conservation easements.
- Similar to the groundwater implementation plans, the aquatic and terrestrial implementation plans would be conceptual in nature, indicating what projects will be implemented, where, at what cost, and over what timeframe, and any needed monitoring activities. The plans would also need to include a justification for the proposed projects in terms of the applicable Stage 1 legal criteria in the existing *RPPC*, which are: technical feasibility; cost:benefit; cost-effectiveness; applicable laws and regulations; impacts to the environment; impacts to human health and safety; results of response actions; and resources of special interest to the Tribes and Department of Interior.
- The AC, TRC, and public review process for these implementation plans, prior to the Governor's approval decision, will be similar to that of the existing *RPPC* public review process. Similar to the groundwater plans, any significant material change to the implementation plans would require public review and approval by the Governor.
- Project design and bid packages would follow plan approval. NRDP and FWP would work jointly on these projects, although only one agency would be responsible for specific project management and the contracting of consultants and implementation of the needed project activities, such as construction or land acquisition. The agency that is not conducting the project management would review and provide comments on the draft and final design documents for the project.

- The lead agency would implement the project according to the final design. Implementation would include all the planning, coordination, sampling, engineering, and monitoring needed to execute the projects covered in the plans and monitor their success.
- Once the aquatic and terrestrial implementation plans have used the initial allocation of funds, additional plans would be prepared using the same process outlined above. These additional plans would be funded from the interest earned on the aquatic and terrestrial priority funds and additional deposits leftover from the Silver Bow Creek Remediation Fund. It is anticipated that all aquatic and terrestrial priority funds would be expended in an estimated 10 to 20 year timeframe.
- The State agencies will expend the priority funds allocated to these plans before seeking any grant funding for other aquatic and terrestrial resource improvement projects not covered in the priority plans.
- While matching funds would not be required for projects implemented with priority aquatic and terrestrial funds, the State entities planning these projects would be encouraged to seek leveraging options to maximize the work that can be accomplished in conjunction with the priority funds.
- Each lead agency will produce annual status and financial reports for activities conducted each year on the priority aquatic and terrestrial restoration projects they are managing.

Section 5. Annual Grant Fund

Thirty-five percent (35%) of the remaining money in the Restoration Fund, which is not committed to work via consent decrees or other approved processes as of January 2009, would be allocated to the grant fund administered similarly to the current annual grant program. The priorities for this fund would be established via the grants evaluation, ranking, and selection process. The projects funded through the grants process would be more reflective of priorities derived by input from the general public, interested stakeholders and agencies, rather than by a specific local community, as would be the case with the groundwater priority fund, or by a specific State agency, as would be the case with the aquatic/terrestrial priority funds.

- The grants program would be for projects that meet the legal threshold that will not be funded through the earmarked resource priority funds. For example, the grants program would not be used to address high priority aquatic and terrestrial resource areas that the State will be addressing via its resource restoration implementation plans or to conduct water system improvements that B-SB and ADLC will be addressing via the groundwater implementation plans. If an entity wishes to work on a project that will address a high aquatic or terrestrial resource priority, then that entity can pursue a partnership with the State on such a project that would be funded with earmarked priority funds.
- An annual cap on available grant funds would be set each year based on the premise of using up the fund balance in a 10 to 20 year timeframe. The cap would be set via the same public process as the cap is now set.

- As with the existing program, funding requirements would be covered under a grant agreement and funding would be on a reimbursement basis, with proper accounting and reporting required for reimbursement.
- Administrative expenses that are not specific to the work conducted with the three priority funds would be covered by the grant fund. For example, NRDP costs and AC expenses associated with administering the grants program would be covered by the grant fund.
- Grant recipients will provide annual status and financial reports, which the NRDP will incorporate into one annual report on all funded projects, both grant and priority-funded.

As part of the process to develop a revised *RPPC* based on this conceptual framework, streamlining changes to the existing grants program can be proposed and considered through the existing public review process involving the AC, TRC, and general public.

Section 6. Basin-wide Long-Term Monitoring and Contingency Fund

Five percent (5%) of the remaining money in the Restoration Fund, which is not committed to work via consent decrees or other approved processes as of January 2009, would be allocated to a Long-term Monitoring and Contingency Fund. Funding would be used for any needed basin-wide monitoring to assess the recovery of the injured resources that would not be covered through project-level monitoring efforts. Such monitoring is currently provided for in the *RPPC*. These funds could also be used to conduct additional restoration work shown to be needed, based on monitoring of completed projects or on other relevant information.

Section 7. Public Review Process and Schedule

This draft conceptual framework and a draft revised *RPPC* will be subject of a public input process similar to the existing *RPPC* process that occurs before a final decision by the Governor on Restoration Fund expenditures. Under that process, the staff's pre-draft proposal for Restoration Fund expenditures is considered by the AC and TRC. The TRC then decides on the draft proposal that is the subject of at least 30-day general public comment period. The staff, AC, and TRC then consider the public comments received in making their final recommendations to the Governor. The Governor considers the input of the general public, staff, AC, and TRC in making the final decision on approved restoration projects. Given the major changes being proposed herein, the NRDP is seeking public input at the conceptual stage of these proposed changes prior to seeking public input on a proposed revised *RPPC*. Following are the proposed steps and schedule for this two-tiered public review process.

A. Public Review Process for Conceptual Framework

February 2008:	Introduce staff proposal at February 12, 2008 AC meeting
March 2008:	Present details of staff proposal at March 11, 2008 AC meeting
April 2008:	AC and TRC decide on draft recommendations

May 2008:	30-day public comment on draft conceptual framework
June 2008:	AC and TRC decide on final recommendations
June 2008:	Governor's Decision on conceptual framework

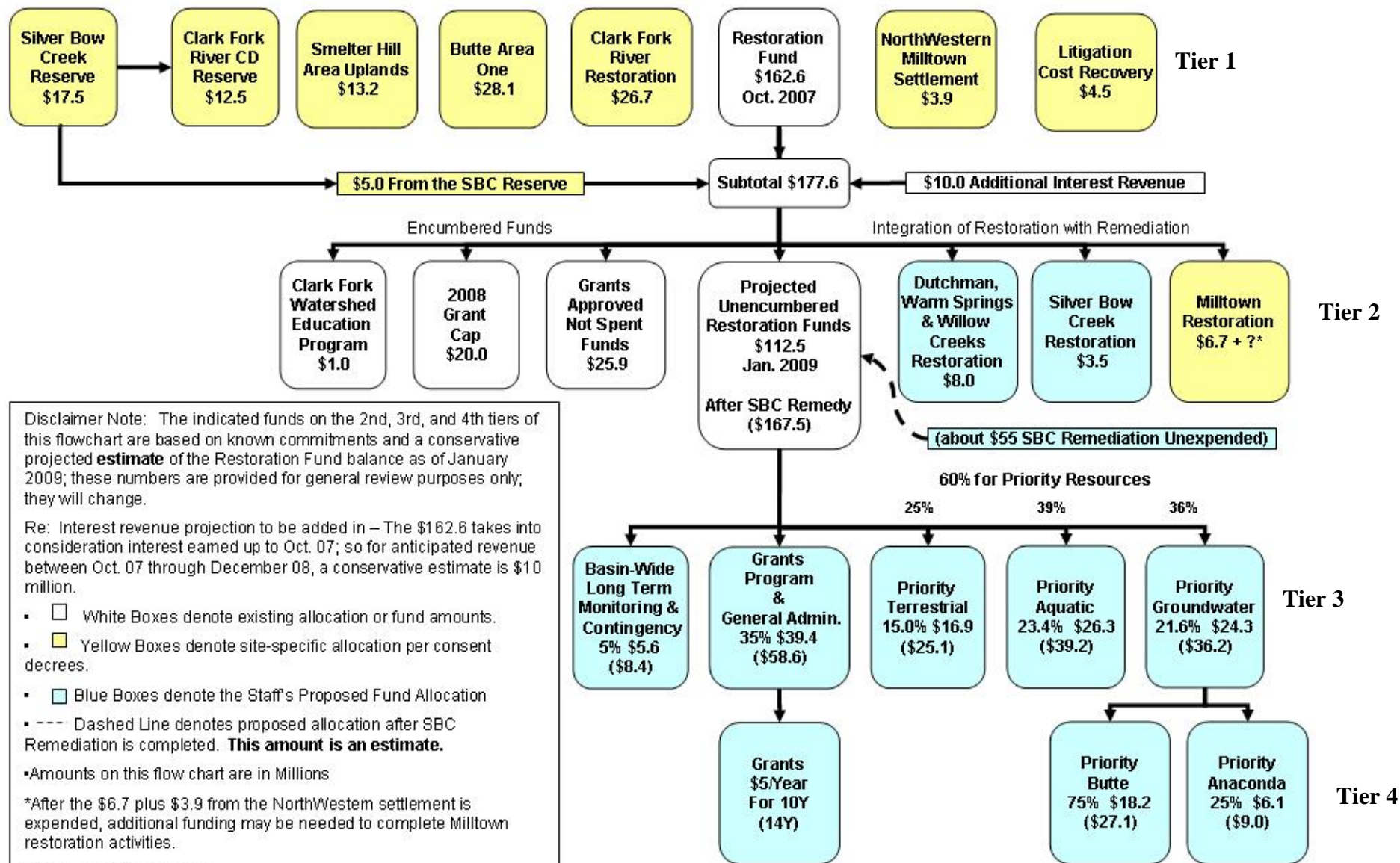
B. Public Review Process for Revised *RPPC*

September 2008	Pre-draft revised <i>RPPC</i> provided to Advisory Council
October 2008	AC and TRC make recommendations on draft revised <i>RPPC</i>
November 2008	30-day public comment period on draft revised <i>RPPC</i>
December 2008	AC and TRC make recommendations on final revised <i>RPPC</i>
December 2008	Governor's Decision on final revised <i>RPPC</i>
January 2009	Revised funding process in place

The natural resource damage provisions of the federal Superfund law and the associated Department of Interior natural resource damage regulations provide that trustee decisions regarding expenditures of natural resource damages be embodied in an appropriate restoration plan and that the public have an opportunity to comment on that plan. The existing framework for Restoration Fund expenditures that is provided in the *RPPC*, combined with the annual Restoration Work Plans that describe, analyze, and select grant projects for funding, together constitute the State's restoration plan that is then the subject of public comment. In this way, the public has the opportunity to comment on the specific projects and budgeted amounts proposed for Restoration Fund expenditures. Under this proposed framework, the groundwater, aquatic, and terrestrial resource restoration implementation plans will be subject to the same public comment process that now exists for the annual Restoration Work Plans. The revised *RPPC*, which is proposed to be developed under this revised framework, combined with these resource restoration implementation plans, are intended to satisfy the legal provisions providing for the expenditure of natural resource damages in accordance with appropriate restoration plans.

Draft UCFRB NRD Fund Allocation Flow Chart

February 2008



Attachment 2. Justification for Proposed Split for Priority Funds

The proposed split for 60% of the unallocated Restoration Fund reflected in tier 3 of the flowchart is 36% to the groundwater priority fund, 39% for the aquatic priority fund, and 25% for the terrestrial priority fund. This split is based on an analysis of compensable and restoration damages claims settled in the 1999 Consent Decree because the natural resource damages obtained from the 1999 settlement are the source of unallocated money in the Restoration Fund. In contrast, all the natural resource damages obtained from the 2008 Consent Decree and the 2005 Milltown Consent Decree are allocated for restoration in specific injured areas.

The list below categorizes the restoration damages claims set forth in the State's 1995 *Restoration Determination Plan*⁸ (RDP) that were settled in the 1999 Consent Decree as groundwater, aquatic or terrestrial claims. The list also categorizes the compensable damages claims that were based on a contingent valuation study and a recreational use study. All of the restoration claims, except for the Silver Bow Creek claim, were specific to one of these three types of injured natural resources covered under *Montana v. ARCO*. Based on the focus and intent of the Silver Bow Creek restoration activities, the NRDP estimates 60% of the 1995 claim addressed aquatic injuries and 40% addressed terrestrial injuries.⁹ This 60/40 split is reflected in the categorization below.

Aquatic Claims

Compensable	176.6
Silver Bow Creek	34.7
Total Aquatic	211.3

Terrestrial Claims

Compensable	112.4
Silver Bow Creek	23.1
Total Terrestrial	135.5

Groundwater Injury Claims

Compensable	121.5
Butte Hill	54.5
Montana Pole	19.5
Milltown (natural recovery)	1.1
Anaconda (natural recovery)	1.8
Rocker (natural recovery)	0.6
Total Groundwater	199.0

Summary of 1999 Claims

Aquatic	211.3 (38.7%)
Groundwater	199.0 (36.5%)
Terrestrial	135.5 (24.8%)
Total	545.8

⁸ *Restoration Determination Plan* for the Upper Clark Fork River Basin, prepared by the NRDP and Rocky Mountain Consultants, Inc., Oct. 1995.

⁹ The Silver Bow Creek claim, which totaled \$54.7 million, covered both aquatic and terrestrial injured resources. The aquatic injuries included injuries to surface water, bed sediments, aquatic insects, fish, and aquatic mammals. The terrestrial injuries covered about 1,000 acres of the floodplain which have been devoid of vegetation and incapable of supporting wildlife due to contamination from tailings deposited in the floodplain. The suggested restoration actions in the State's 1995 *Restoration Determination Plan* focused on reducing the impacts of hazardous substances to the aquatic system. However, it is understood that by restoring the 1,000 acres of impacted riparian areas, terrestrial resources will also substantially benefit.

Attachment 3. Supplemental Information on Groundwater Priority Fund and Process

A. 3:1 Butte/Anaconda Groundwater Priority Fund Allocation

The NRDP proposed a 3:1 split of the Groundwater Priority Fund for Butte and Anaconda groundwater replacement projects, respectively, based on the following rationale.

- In November 2007, B-SB and ADLC provided the State with their projected waterline replacement needs and budgets tied to the on-going water main replacement programs. B-SB estimated \$22 million to finish their program; ADLC estimated \$7.4 million.¹⁰ Combining the two estimates totaling \$29.4 million, Butte's portion is about 75% and Anaconda's portion is about 25%.
- According to the 2000 Census, the estimated population for Butte-Silver Bow is 34,606 and the estimated population for Anaconda-Deer Lodge County is 9,417, which is about a 3:1 split.
- While the volume of the injured groundwater in the Butte and Anaconda areas were both extensive, the majority of the Butte urban area overlies the injured aquifers whereas the majority of the Anaconda urban area does not overlie the injured aquifers. With planned upgrades, Anaconda has adequate local groundwater supplies for its drinking water supply, whereas Butte must rely on surface water resources, with 60 to 80% from the Big Hole supply, which is more expensive to treat/deliver compared to that of a local groundwater supply.
- The State's restoration damage claim for the Butte bedrock groundwater injury that was subject of the 1999 settlement was substantially higher than the restoration damage claim for the Anaconda groundwater injury that was subject of the 1999 settlement.

B. Butte and Anaconda's Groundwater Replacement Prioritization Efforts and Funding

1. Butte: In December 2005, the Governor approved a \$174,634 grant for B-SB to update its 1998 water master plan in order to identify and prioritize future water system needs in Butte. B-SB's master planning effort, which is to be completed in spring 2008, involves: 1) establishing Butte's water demands; 2) conducting hydraulic modeling of Butte's water system; 3) developing water supply alternatives; 4) evaluating existing water treatment plants; 5) analyzing the present water distribution system; 6) evaluating existing storage facilities; and 7) conducting a source water protection analysis.

2. Anaconda: In December 2007, the Governor approved a \$107,771 grant to ADLC to update its 2004 water master plan through the completion of water metering and distribution system modeling studies. As part of its 2006 waterline replacement grant to ADLC, the State also approved \$9,203 in funding to conduct a system-wide leakage reevaluation, which will occur in

¹⁰ B-SB's estimate is based on costs incurred for implementation of waterline work in 2007. ADLC's estimate is based on costs estimated in 2004, which are similar to actual costs for implementation of waterline work in 2006 on a pipe cost per lineal foot basis.

March 2008. ADLC has also initiated a water rate study through Montana Rural Water Systems. Collectively these four studies will give the ADLC the proper tools to prioritize needed improvements to its water system and optimize use of existing water supplies, both through both leakage reductions and potential meter-induced conservation.

Attachment 4. Supplemental Information on Aquatic and Terrestrial Prioritization

A. Aquatic Prioritization Effort

As part of its restoration planning process for the Clark Fork River restoration damage claim, the State considered alternatives involving restoration work on the tributaries that would best help the Clark Fork River fishery reach baseline conditions. Based on its evaluation of existing information on tributary fisheries, however, the State concluded that there was insufficient information to conduct such a prioritization. Thus in 2007, the State, through a Memorandum of Understanding (MOU) between FWP and the NRDP, began a phased tributary restoration prioritization effort as part of its ongoing litigation restoration planning process. Because this effort was conducted for the purposes of litigation, it was not subject of any public review process.

Pursuant to the MOU, FWP, in consultation with NRDP, will assess fishery populations and riparian habitat of the selected tributaries to the Upper Clark Fork River between Warm Springs Ponds and Milltown Reservoir and prioritize future restoration work in these tributaries based on following goals:

- 1) Restore the Clark Fork River fishery to levels similar to other area rivers.
- 2) Maintain and enhance viable native trout populations throughout the UCFRB.
- 3) Replace lost angling opportunity in the Clark Fork River by enhancing tributary fisheries.

Phase I tributary assessment activities concluded in 2007 involved assessment of about 50 reaches of Clark Fork River tributary streams. FWP is in the process of preparing the Phase I report. Pursuant to the MOU for Phase I, the NRDP will contribute up to \$132,486 in Restoration Funds and FWP will provide funds or in-kind services totaling \$100,000. Phase II tributary assessment activities will occur in 2008 and involve about 50 additional reaches of tributary streams. Pursuant to the MOU between NRDP and FWP, the NRDP will contribute up to \$123,606 in Restoration Funds and FWP will provide funds or in-kind services totaling \$72,394 to complete this phase.

Information on the fisheries of the Clark Fork River is also needed to prioritize aquatic restoration efforts. Radio-tagged fish help identify streams that are a source of trout recruitment into the Clark Fork River, thus focusing restoration efforts. In addition, telemetry work can help develop habitat projects by identifying sources of mortality, impediments to migration, and critical habitats. Fish population estimates are needed to understand the abundance and distribution of fish species, help identify critical habitats, and establish a baseline of fish numbers in which to monitor restoration success. Habitat quality alone does not indicate use by fish or limiting factors. How, when, and to what extent fish use their habitat is crucial to planning restoration efforts and maximizing the benefit of money spent. FWP will provide a scope of work and budget for proposed radio-telemetry and population surveys for TRC approval in fall 2008 for implementation starting in spring 2009.

In December 2005, the Governor approved the *Final Silver Bow Creek Watershed Restoration Plan*. The plan identifies and prioritizes restoration needs in the Silver Bow Creek watershed.

Development of the plan occurred over a three year period and involved extensive public input, and data collection and analysis, at a total cost of about \$250,000 in Restoration Funds. The plan evaluates current conditions, identifies desired future conditions and prioritizes restoration needs to achieve the desired conditions. The State will rely on the prioritization of fishery restoration needs of Silver Bow Creek tributaries in this Plan in preparing its aquatic resource prioritization document for the entire UCFRB.

B. Scope of Work and Budget for Terrestrial Resource Prioritization Effort

FWP, in consultation with the NRDP, will assess and prioritize the terrestrial resources of the entire UCFRB, subject to TRC approval of about \$150,000 in Restoration Funds for this prioritization effort. FWP would procure a consultant to conduct the assessment portion of this effort using existing resource information, databases, and Geographic Information Systems (GIS) to compile, analyze, and develop information on native ecosystems, wildlife and habitat in the UCFRB. For the Silver Bow Creek watershed, which is about 13% of the entire upper Basin, most of this data has already been compiled through the development of the *2005 Silver Bow Creek Watershed Restoration Plan*. The product will be an assessment that contains both digital and hard copies of information on past, present, and desired future terrestrial ecosystem and wildlife conditions that will facilitate better planning and decision-making of terrestrial resources in the UCFRB.

The assessment would involve the following steps, at an estimated total project cost of \$150,000. Compilation and mapping of existing data would occur first, with a report to be completed by December 2008. Supplemental field sampling would be completed in the summer 2009, with a final report to be produced by December 2009.

1. Compile available information, data, and maps for ownerships, infrastructure, wildlife populations, ecological sites, wildlife linkage zones, habitat types, vegetation, and similar information;
2. Classify and describe native forest, grass, and shrub ecosystems for the area in terms of their compositions, structures, and processes;
3. Conduct field sampling to determine the quantity, quality, and condition of existing grass and shrub lands and where necessary ground-truth data on forested habitats;
4. Integrate available data on riparian and wetland ecosystems and, where necessary, conduct fieldwork to collect additional information on these systems;
5. Quantify existing ecosystem types and distributions based on available data;
6. Link wildlife habitat needs with ecosystem classifications;
7. Review information with agency personnel;
8. Estimate impacts that have resulted from development and human activities, to the extent feasible;

9. Identify areas of greatest ecological value and risk; and

10. Present all information in a report with supporting maps.

The assessment will also highlight those areas of greatest conservation value, of greatest conservation risk, and those areas with the greatest restoration potential. This assessment will, in concert with public input, be used by FWP to create a terrestrial prioritization document, which will guide future allocation of the priority terrestrial resource funds. This assessment is needed as there is no comprehensive data-set on wildlife habitat and conditions in the 2,368,604 acre UCFRB and an understanding of existing conditions is necessary to identify priority terrestrial resources and to assist in optimizing the restoration and replacement of those resources. The terrestrial prioritization document will be subject of public input as described in Section 4.

Attachment 5. Supplemental Information on Proposed Silver Bow Creek Ecological Allocation

To date, \$12 million dollars have been approved for restoration along the 23 mile Silver Bow Creek via five Greenway Service District grants. For the most part, these grants were for ecological improvements to augment DEQ remedial actions, such as additional tailings removals in Ramsay Flats, organic matter additions to remediated floodplain areas, additional plantings, seeding, wetlands, stream habitat restoration and monitoring.¹¹ The grants have been for areas in and along the Silver Bow Creek floodplain from Butte to three miles upstream from Warm Springs Ponds, or a total of 20 miles. Access features, which include a paved trail, bridges, and trailheads, are a component of these grants as well. Land acquisition has also been an important component of past grants. The approved grant funding to date will take care of all needed acquisitions/easements for the protection of the floodplain and public access via the Greenway trail.

The NRDP proposes an allocation of \$3.5 million to fund additional ecological components along the remainder of Silver Bow Creek. These components will include organic matter additions to remediated floodplain areas, additional plantings, seeding, wetlands stream habitat restoration, monitoring, weed control and contingencies. Also, this allocation is expected to cover all funds necessary for 10 years of monitoring and maintenance of the restoration components and for additional unforeseen restoration along the whole creek.

The breakdown for the \$3.5 million estimate, which is based on costs incurred for ecological enhancements in past years with an inflation contingency, is as follows:

1. Ecological improvements to stream and floodplain at about \$670,000 per mile for three miles, or about \$2 million total.
2. Operation and maintenance for ecological improvements totaling \$1 million over 10 years, which is about \$4,000 per mile of stream per year for 25 stream miles.
3. \$500,000 budgeted as a contingency for additional restoration actions, such as stream floodplain enhancements.

This budget is only for restoration ecological components in the Silver Bow Creek floodplain. It does not include any costs specific to the completion for Greenway trail and associated recreational access features. Through the approved Greenway grant, recreational access features have been funded for seven miles of the intended 23-mile recreational trail.¹² Additional funding to complete the entire trail and associated access features would be considered through the grant process, as would any other recreational access proposals.

¹¹ Of the \$12 million approved in grant funding for the Greenway grants, about 68% is for ecological enhancements, 21% is for recreational access features, and 12% is for land easements or acquisitions.

¹² In addition, four pedestrian bridges have been approved for funding in miles 17 – 19 and the Montana Department of Transportation is constructing a large rest area near mile that is expected to serve as the Greenway trailhead in that area.